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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,082	02/20/2004	Cecil C. Chappelow	800528-0015	7027

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KANSAS CITY, MO 64106-2150

EXAMINER
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MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/784,082

Applicant(s)

CHAPPELOW ET AL.

Examiner

Sanza L. McClendon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION*****Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 14-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-2 of U.S. Patent No. 6,653,486. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to comprise overlapping subject matter. It is acknowledged that the instant claims are products (claim 15-16) made by a specific process (see claim 14), however there is no distinction between claims 15-16 and claims 1-2 of 6,653,486, wherein the formula of claim 1 and specific compounds of claim 2 in 6,653,486 appears to overlap with at least some of the products in claim 15 and 16. Therefore the examiner deems that one of ordinary skill in the art would be able to obtain the products of claims 15-16 from the teachings and claims of 6,653,486.

3. Claims 1-16 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of U.S. Patent No.

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6,458,865. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to comprise overlapping subject matter. When claim 1-29 of 6,458,865 are taken as a whole it appears to overlap with the instantly claimed compositions, the differences being the vinyl ether compound of 6,458,865. The instantly claimed composition has open language and does not positively exclude the addition of any other components including vinyl ether compounds as found in 6,458,865. Therefore one of ordinary skill in the art at the time of the invention could have obtained the instantly claimed compositions from the teachings/claims of 6,458,865.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Chappelow et al (6,653,486; 6,458,865; 2002/0013380; and 2003/0119931). All column and line usage taken from 6,653,486.

The applied reference has a common inventor/assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Chappelow et al teaches spiroorthocarbonates containing epoxy groups and their use in dental compositions. Said dental compositions are disclosed as comprising vinyl ether, a photoinitiator system, epoxide compounds, polyol compounds, and spiroorthocarbonates. Said SOC compounds are represented by the formula found in columns 3 and 17-48, wherein it is disclosed that these compounds preferably comprise at least one epoxy group—see column 5, lines 25-end. The compounds of claims 4 and 15-16 appear to be found in these citations. Said photoinitiator system is a ternary photoinitiator system comprising an iodonium salt, a photo-sensitizer, and an electron donor

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compound. Said iodonium salts can be found in column 8, wherein those of claim 3 can be found. Said photosensitizer can be found in column 10, wherein camphorquinone, and others can be found. Examples of the electron donor compounds can be found in column 13, wherein those of claim 11 can be found. Said epoxy compounds can be found in columns 13-15, wherein those of claim 5 appear to be listed. Said polyol compounds can be found in columns 15-16, wherein those of claim 7 can be found. In addition to the above listed components said dental compositions can also comprise non-reactive fillers, coupling agents, and other additives—see columns 63-66.

Per column 25, Chappelow et al teaches methods of making said epoxidized SOC compounds:

The SOC's can be prepared by transesterification of tetraalkylorthocarbonates such as tetraethylorthocarbonate or tetramethylorthocarbonate and the corresponding diol using an aromatic hydrocarbon solvent such as toluene or xylene in the presence of a catalytic amount of an organic acid such as p-toluene sulfonic acid. The reaction is driven to completion by removal of the alcohol and is purified by distillation or chromatography and/or recrystallization. The spiroorthocarbonate compounds can also be prepared by other reactions involving thiophosgenation and organotin intermediates. See generally, R. K. Sadhir & R. M. Luck, *Expanding Monomers: Synthesis, Characterization and Applications*, CRC Press, Boca Raton, Fla. (1992).

This appears to anticipate claim 14 and the products obtained by said method appear to anticipate claims 15-16. Claims 1, 12, and 13 appear to be anticipated by Tables 4 and 7B. The inventions of claims 1-16 are anticipated by the reference.

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**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Moszner et al (Prog. Poly. Sci. 26 (2001) 535-576) teaches the state of the art in reference to the use of spiroorthocarbonates in dental compositions, the difference being this reference does not disclose oxirane-functional spiroorthocarbonates.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L. McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Sanza L. McClendon  
Examiner  
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